Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-4 and 6-27 remain in the application. Claims 1 and 7 have been amended. Claim 5 has been cancelled.

Applicants fully agree with the interview summary dated February 23, 2009 and the Examiner's summary of the substance of the interview therein.

In item 2 on page 2 of the above-identified Office action, claims 1-27 have been rejected as being indefinite under 35 U.S.C. § 112.

More specifically, the Examiner alleges that the meaning of the claim language that a thermal expansion behavior being displaced in terms of time or in relation to temperature is unclear. Claim 1 has been amended to delete the subject matter. Therefore, the rejection of claims 1-27 has been overcome.

It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph. Should the

Examiner find any further objectionable items, counsel would appreciate a telephone call during which the matter may be resolved.

In item 5 on page 2 of the above-identified Office action, claims 1-27 have been rejected as being obvious Ota et al. (U.S. Patent No. 5,486,338) (hereinafter "Ota") in view of Cheung (U.S. Patent No. 4,193,793) and Maus et al. (U.S. Patent No. 5,916,530) (hereinafter "Maus") and evidenced by Cyron et al. (U.S. Patent No. 4,795,615) (hereinafter "Cyron") under 35 U.S.C. § 103.

The rejection has been noted and the claims have been amended in an effort to even more clearly define the invention of the instant application. The claims are patentable for the reasons set forth below. Support for the changes is found in claim 5. Moreover, claim 7 has been amended to be independent for by adding the subject the subject matter of claim 1

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, *inter alia*:

at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress of 1090°C.

Claim 7 calls for, *inter alia*:

the matrix and the housing define an annular gap therebetween and surrounding the matrix, and the at least one contraction limiter sealing the annular gap surrounding the matrix.

Moreover, the present invention is directed to a thermal shock problem of a honeycomb body, which leads to barrel-like deformations of the matrix. Due to the rapid heating of the gas inlet side of the matrix axial section of the gas inlet expands in a radial direction in relation to core sections of the matrix. This effect can lead to a plastic deformation of the matrix, wherein the front face section of the matrix is compressed and the adjacent core section is being stretched. After cooling of the matrix (which is a slow process with less temperature gradients) a barrel-like deformation of the matrix is caused wherein the gas inlet section of the matrix has a reduced diameter in relation to the adjacent core sections.

The contraction limiter of the present invention as claimed, helps to reduce that effect.

As stated in the substance of the interview by the Examiner, the Examiner indicated that an amendment directed to the material property of the contraction limiter would overcome the prior art as presently applied.

Claim 1 has been amended that so as to recite that the contraction limiter has the physical properties which will apply enough tensile strength to prevent a contraction of the initial diameter of the matrix during a thermal stress of 1900°C. Accordingly, claim 1 has the material properties that are present in the present invention as claimed, overcome the cited prior art.

Furthermore, it is noted that Ota discloses a cushion element and not a contraction limiter. Therefore, Ota provides not disclosure with respect to providing a contraction limiter for limiting contraction of a matrix body over a thermal stress of 1900°C.

As seen from the above-given remarks Ota does not disclose that at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of

the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress of 1090°C.

None of Cheung, Maus and Ota pertain to the mechanical structure of a honeycomb body with a casing and a contraction limiter that should prevent the honeycomb body from deforming over a temperature range of 1900°C. Therefore, Cheung, Maus, and Cyron cannot and do not make up for the above-noted deficiencies of Ota.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest **all** the claim limitations.

The references do not show or suggest at least one contraction limiter configured for imparting an outwardly directed tensile stress in at least one part of the matrix for preventing the average initial diameter of the matrix from decreasing by more than 5% during and/or after a thermal stress of 1090°C, as recited in claim 1 of the instant application.

The references applied by the Examiner **do not** teach or suggest all the claim limitations. Therefore, there is no *prima facie* case of obviousness.

Since claim 1 is allowable, dependent claims 2-4, 6 and 9-28 are allowable as well.

The following further remarks pertain to claim 7 of the instant application.

On page 6 of the Office action the Examiner alleges that Ota discloses "said contraction limiter seals said gap surrounding said matrix (5 see Fig. 1)."

It is respectfully noted that the Examiner's allegation is not accurate. More specifically, Fig. 1 does not include cross-hatching for element 5. Therefore, Fig. 1 of Ota discloses that the annular gap between the case (2) and the honeycomb body is not sealed by element "5". This is further supported by the plan views of Figs. 2, 3, 5, and 6 of Ota, wherein Ota discloses the cushion element is affixed to the case by the connection areas (9a and 9b) which are explicitly spaced apart in the circumferential direction. Therefore, Fig. 2 of Ota does not show sealing of the annular gap by the cushion element (5) (there are large gaps radially between the connections 9a between the cushion and the case and large gaps between the connections 9b between the cushion and the honeycomb). Accordingly, it is respectfully noted that the

Examiner's allegation with respect to Fig. 1 showing a sealing of the annular gap around the matrix, is not accurate.

Moreover, the remaining Figs. 3, 4, and 5 of Ota show that the annular space is not sealed by the respective sheet metal elements (10, 11). In fact, as noted above, Ota explicitly teaches away from a rigid element, as required in claim 7 of the instant application to seal the annular gap.

It is a requirement for a *prima facie* case of obviousness, that the prior art references must teach or suggest **all** the claim limitations.

The references do not show or suggest the matrix and the housing define an annular gap therebetween and surrounding the matrix, and the at least one contraction limiter sealing the annular gap surrounding the matrix, as recited in claim 7 of the instant application.

As seen above, Ota does not disclose this feature. Furthermore, as seen from the above-given remarks, Ota explicitly teaches away from a connection element which would seal the annular gap surrounding the honeycomb because it would lead to a rigid connection, which is unwanted by Ota.

Therefore, Cheung, Maus, and Cyron cannot and do not make up for the deficiencies of Ota.

The references applied by the Examiner **do not** teach or suggest all the claim limitations. Therefore, there is no *prima facie* case of obviousness.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1 or 7. Claims 1 and 7 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-4 and 7-28 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-1099.

Respectfully submitted,

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